

WHAT IS CLAIMED IS:

1. Isolated nucleic acid comprising DNA having at least an 80% sequence identity to (a) a DNA molecule encoding a polypeptide selected from the group consisting of:

(1) a PRO1031 polypeptide comprising the sequence of amino acid residues 1 or 21 through 180, inclusive of Figure 1 (SEQ ID NO:1), and

(2) a PRO1132 polypeptide comprising the sequence of amino acid residues 1 or about 1 or about 19 through 197, inclusive; or

(b) the complement of the DNA molecule of (a).

2. The nucleic acid of Claim 1, wherein said DNA comprises the sequence of corresponding nucleotide positions: (1) 42 to about 581, inclusive, of SEQ ID NO:2 or (2) 49 to about 640, inclusive, of SEQ ID NO:4 .

3. The nucleic acid of Claim 1, wherein said DNA comprises the nucleotide selected from the group consisting of sequence of SEQ ID NO:2 and SEQ ID NO:4.

4. The isolated nucleic acid molecule of Claim 1 comprising a nucleotide sequence that encodes the sequence of amino acid selected from the group consisting of: (1) residues from 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1) and (2) residues from 1 or about 19 to about 197 of Figure 2 (SEQ ID NO:3).

5. Isolated nucleic acid comprising DNA having at least an 80% sequence identity to a DNA molecule (a) a DNA molecule encoding the same mature polypeptide encoded by the human protein cDNA selected from the group consisting of: (1) ATCC Deposit 209866 and (2) ATCC Deposit 203552; or (b) the complement of the DNA molecule of (a).

6. The isolated nucleic acid molecule of Claim 5 comprising DNA encoding the same mature polypeptide encoded by the human protein cDNA deposited with the ATCC under ATCC Deposit Number 209866 or 203552.

7. An isolated nucleic acid molecule comprising DNA which comprises at least about 80% sequence identity to (a) the full-length polypeptide coding sequence of the human

protein cDNA deposited with the ATCC under ATCC deposit numbers 209866 or 203552, or  
(b) the complement of the coding sequence of (a).

8. The isolated nucleic acid molecule of claim 7 comprising the full-length  
5 polypeptide coding sequence of the human protein cDNA deposited with the ATCC under  
ATCC Deposit Nos. 209866 or 203552.

9. An isolated nucleic acid molecule encoding a PRO1031 or PRO1122  
polypeptide comprising DNA that hybridizes to the complement of the nucleic acid sequence  
10 that encodes a polypeptide selected from the group consisting of: (1) amino acids 1 or about  
21 to about 180 of Figure 1 (SEQ ID NO:1); (2) amino acids 1 or about 19 to about 197 of  
Figure 3 (SEQ ID NO:3).

10. The isolated nucleic acid molecule of claim 9, wherein the nucleic acid that  
15 encodes (1) amino acids 1 or about 21 to about 180, inclusive, of Figure 1 (SEQ ID NO:1) or  
(2) amino acids 1 or about 19 to about 197, inclusive, of Figure 3 (SEQ ID NO:3) comprises  
nucleotides (1) 42 or about 102 to about 581, inclusive, of Figure 2 (SEQ ID NO:2) or (2) 49  
or about 104 to about 640, inclusive, of Figure 4 (SEQ ID NO:4), respectively.

11. The isolated nucleic acid molecule of claim 9, wherein hybridization occurs  
20 under stringent hybridization and wash conditions.

12. An isolated nucleic acid molecule comprising (a) DNA encoding a  
polypeptide scoring at least 80% positives when compared to the sequence of amino acid  
25 residues selected from the group consisting of: (1) from 1 or about 21 to about 180, inclusive,  
of Figure 1 (SEQ ID NO:1); or (2) from 1 or about 19 to about 197, inclusive, of Figure 3  
(SEQ ID NO:3); or (b) the complement of the DNA of (a).

13. An isolated nucleic acid molecule comprising at least about 250 nucleotides in  
30 length and which is produced by hybridizing a test DNA under stringent hybridization  
conditions with (a) a DNA molecule which encodes a PRO1031 or PRO1122 polypeptide  
comprising a sequence of amino acid residues from 1 or about 21 to about 180, inclusive, of  
Figure 1 (SEQ ID NO:1); or from 1 or about 19 to about 197, inclusive, of Figure 3 (SEQ ID

NO:3), respectively, or (b) the complement of the DNA molecule of (a), and isolating the test DNA molecule.

14. The isolated nucleic acid molecule of claim 13, which has at least about 80% sequence identity to (a) or (b).

15. A vector comprising the nucleic acid molecule of any of Claims 1 to 14.

16. The vector of Claim 15, wherein said nucleic acid molecule is operably linked to control sequences recognized by a host cell transformed with a the vector.

17. A nucleic acid molecule deposited with the ATCC number under accession number 209866 or 203553.

18. A host cell comprising the vector of Claim 15.

19. The host cell of Claim 18, wherein said cell is a CHO cell.

20. The host cell of Claim 18, wherein said cell is an *E. coli*.

21. The host cell of Claim 18, wherein said cell is a yeast cell.

22. A process for procuring a PRO1031 or PRO1122 polypeptide comprising culturing the host cell of Claim 18 under conditions suitable for expression of said PRO1031 or PRO1122 polypeptide and recovering said PRO1031 or PRO1122 polypeptide from the cell culture.

23. An isolated polypeptide comprising an amino acid sequence comprising at least about 80% sequence identity to the sequence of amino acid residues selected from the group consisting of: (1) a PRO1031 polypeptide comprising residues 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1), and (2) a PRO1122 polypeptide comprising residues 1 or about 19 to about 197 of Figure 3 (SEQ ID NO:3).

24. The isolated PRO1031 or PRO1122 polypeptide of claim 23 comprising amino acid residues 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1) or 1 or about 19 to about 197 of Figure 3 (SEQ ID NO:3), respectively.

25. An isolated PRO1031 or PRO1122 polypeptide having at least about 80% sequence identity to the polypeptide encoded by the cDNA insert of the vector deposited with the ATCC as ATCC Deposit No. 209866 or 203552, respectively.

26. The isolated PRO1031 or PRO1122 polypeptide of Claim 25 which is encoded by the cDNA insert of the vector deposited with the ATCC as ATCC Deposit No. 209866 or 203552, respectively.

27. An isolated PRO1031 or PRO1122 polypeptide scoring at least 80% positives when compared to the sequence of amino acids from about 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1) or 1 or about 19 to about 197 of Figure 3 (SEQ ID NO:3), respectively.

28. An isolated PRO1031 or PRO1122 polypeptide comprising the sequence of amino acid residues from 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1), or 1 or about 19 to about 197 of Figure 3 (SEQ ID NO:3), respectively, or a fragment thereof sufficient to provide a binding site for an anti-PRO1031 or anti-PRO1122 antibody, respectively.

29. An isolated polypeptide produced by (i) hybridizing a test DNA molecule under stringent conditions with (a) a DNA molecule encoding a PRO1031 or PRO1122 polypeptide comprising the sequence of amino acid residues from 1 or about 21 to about 180 of Figure 1 (SEQ ID NO:1), or 1 or about 19 to about 197 of Figure 3 (SEQ ID NO:3), respectively; or (b) the complement of the DNA molecule of (a); (ii) culturing a host cell comprising the said test DNA molecule under conditions suitable for the expression of said polypeptide, and (iii) recovering said polypeptide from the cell culture.

30. The isolated polypeptide of Claim 29, wherein said test DNA has at least about 80% sequence identity to (a) or (b).

31. A chimeric molecule comprising a PRO1031 or PRO1122 polypeptide fused to a heterologous amino acid sequence.

32. The chimeric molecule of Claim 31, wherein said heterologous amino acid sequence is an epitope tag sequence.

5 33. The chimeric molecule of Claim 31, wherein said heterologous amino acid sequence is an Fc region of an immunoglobulin.

34. An antibody which specifically binds to a PRO1031 or PRO1122 polypeptide.

10 35. The antibody of Claim 34, where said antibody is a monoclonal antibody.

36. The antibody of Claim 34, wherein said antibody is a humanized antibody.

15 37. An agonist to a PRO1031, PRO1122 or IL-17 polypeptide.

38. An antagonist to a PRO1031, PRO1122 or IL-17 polypeptide.

20 39. A composition comprising a therapeutically effective amount of an active agent selected from the group consisting of: (a) a PRO1031 or PRO1122 polypeptide, (b) an agonist to a PRO1031 or PRO1122 polypeptide, (c) an antagonist to a PRO1031 or PRO1122 polypeptide, and (d) an anti-PRO1031 or anti-PRO1122 antibody; in combination with a pharmaceutically acceptable carrier.

25 40. A method of treating a degenerative cartilaginous disorder by administration of a therapeutically effective amount of a PRO1031 or PRO1122 polypeptide, agonist, or antagonist thereof to a mammal suffering from said disorder.

30 41. A method of diagnosing a degenerative cartilagenous disorder by: (1) culturing test cells or tissues expressing PRO1031 or PRO1122; (2) administering a compound which can inhibit PRO1031 or PRO1122 modulated signaling; and (3) measuring the PRO1031 or PRO1122 mediated phenotypic effects in the test cells or tissues.

42. An article of manufacture comprising a container, label and therapeutically effective amount of PRO1031, PRO1122, agonist or antagonist thereof in combination with a pharmaceutically-effective carrier.